

The Challenges of Virtual Consultations in Diagnosing Acute Medical Conditions in Primary Care

Mohammed Abdul Haseeb (1)

Ameer Muhammad Khan (2)

Ali Tajdar Rizvi (2)

Aziz Ur Rehman (3)

(1) Family Medicine Specialist, PHCC, Qatar

(2) Consultant Family Medicine, PHCC Qatar

(3) General Practitioner, PHCC Qatar

Corresponding author:

Dr Mohammed Abdul Haseeb,
Family Medicine Specialist, PHCC,
Qatar

Email: drhaseeb786@googlemail.com

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Abstract

Since the start of the global Covid-19 Pandemic many health providers have resorted to virtual telephone consultations replacing the traditional face-to-face encounters [1]. The aim of virtual consultations is to protect both the patient and the clinician from the potential spread of the coronavirus.

It also became mandatory in many areas where there are strict lockdowns in place, preventing people from leaving their homes, unless they have a pressing reason to do so [2]. It seemed reasonable that a lot of the routine health needs of patients such as medication refills, referrals and ordering blood tests could be conducted over the phone without the need to see the patient in person. There are still instances though when a patient needs to be seen in person depending on the severity or type of their complaint.

This case study looks at a specific case where the telephone consultation model had limitations in reaching a diagnosis and commencing appropriate timely treatment. It also highlights the pitfalls we as clinicians can face when solely relying on virtual consults to manage some of our high-risk patients [3]. It looks at how important it is to take a detailed history over the phone and what safety net measures need to be put in place to prevent missing a life-threatening medical emergency.

Key words COVID 19, Virtual consultation, Risk stratification, Cardiovascular disease

Case Report

The case is that of a 49-year-old male Bangladeshi patient who contacted the call centre to book a telephone appointment at the Primary Health care centre (PHCC) with a clinician. The reason for this was to get a refill of his proton pump inhibitor tablets of which he had run out of a few days prior. He reported no other complaints at the time.

The patient was a known Type 2 Diabetic, hypertensive, and had dyslipidaemia. His last Blood Pressure reading was 134/82. His BMI was 28 and he had a 10-pack year smoking history. He had no family or personal previous history of coronary artery disease. He had a QRISK2 score of 41.1% based on the above information.

His current medication regimen included sitagliptin/metformin 50/1000mg, atorvastatin 10mg, amlodipine 5mg, and esomeprazole 40mg. He was compliant with taking his medication and this was confirmed by the frequency of his request for refills, which was timely and appropriate.

The GP enlisted the help of a doctor colleague, with the patients' consent, who helped with translation as the patient did not speak any English. The patient reported that he had a heavy meal in the afternoon. Immediately following the meal, he experienced epigastric discomfort, belching, and bloating. He had experienced these symptoms in the past and put it down to his dyspepsia. These symptoms usually resolved after taking esomeprazole 40mg, and since he had run out of this medication, he contacted the health centre.

The entire consultation was performed over the phone. His symptoms were explored in more detail due to his underlying risk factors. On further questioning, the patient reported that he had also felt generally unwell, weak, clammy and was slightly breathless. 999 was not immediately called at the time of the consultation as the patient was in the premises of the health centre as he desperately wanted to go to the health centre pharmacy and get the esomeprazole as soon as the prescription was issued by the doctor. All PHCC have a pharmacy from where patients would receive their medication

It was decided that he should be seen face-to-face due to his history and the risk factors. Under our health centre protocol, all necessary PPE precautions were taken and the patient was immediately reviewed.

Examination

The patient looked pale, his chest was clear, and the heart sounds were normal. Blood pressure was recorded as 144/90, his pulse was 88bpm regular, he was afebrile, and his oxygen saturation was 97% in air. The GP organized a 12 lead ECG which showed an ST Elevation in Leads V1 and aVR with ST depression in leads V4, V5, V6.

A provisional diagnosis of Acute Coronary Syndrome (ACS) was made and the patient was informed that he would need to be referred to secondary care. He was given Aspirin 300mg, GTN spray sublingual and transferred to the Heart hospital via the ambulance service for further management.

Recent Investigations

His last blood tests 6 weeks prior to his attendance revealed the following: HbA1c 8%

Lipids: Total Cholesterol 5.4, HDL 0.8, LDL 4.8, TG 1.2

FBC: Normal

Renal Function and Liver Function Test Normal

Investigations following admission to hospital

Chest X Ray: Normal

Troponin: 62.93 ng/L and this rose to 1234 ng/L after 5 hours

Coronary Angiography:

Left Main (LMS) Normal

Left Anterior Descending

(LAD) Mid LAD 100% Stenosis,

D1 80% Stenosis

Left Circumflex (LCA)

CM1 95% Stenosis

Right Coronary Artery (RCA)

Proximal RCA 80% Stenosis

Mid RCA 90% Stenosis

Right PDA 100% Stenosis

This gentleman was confirmed to have suffered with an acute coronary syndrome due to severe atherosclerosis of his coronary arteries. He was appropriately managed as an NSTEMI in hospital and was discharged home with appropriate medication. He was put on the waiting list for a coronary artery bypass graft (CABG).

Discussion

The research literature on virtual consultations is sparse. During the covid-19 pandemic such consultations offer potential advantages to patients and the healthcare system in reducing the transmission of the virus and therefore limiting its spread [4]. However, fears have been expressed that they may be clinically risky and less acceptable to patients or staff, and they bring significant technical, logistical, and regulatory challenges [5]. The telephone consultations can at times be more challenging than the traditional face-to-face consults in terms of missing important cues and being unable to examine a patient to help identify the unwell patient. We anticipate that this case study will contribute to a balanced assessment of when, how and in what circumstances it is appropriate to manage a patient over the phone.

Learning Points

An unusually heavy meal may increase the risk of heart attack by about four times within two hours after eating, according to a study presented at the American Heart Association's Scientific Sessions 2000[1]. Researchers say this finding indicates that eating a heavy meal may act as a trigger for heart attack in much the same way as extreme physical exertion and outbursts of anger might – especially in someone who has heart disease [6].

Hence any patient, especially those with concurrent risk factors, who report any gastritis like symptoms after a heavy meal, such as dyspepsia, belching, retrosternal pain, should have a detailed evaluation to rule out any cardiac cause of their symptoms. Whilst virtual consultations can add to the difficulty of getting an accurate history from the patient, every effort should be made to add certainty to rule out any serious health issue.

In Primary Health Care Corporation Centres in Qatar, every health centre has a pool of trained nurses, doctors and allied health care professionals who speak different languages. If a clinician has trouble in consulting a patient due to a language barrier, he or she can enlist the help of a translator from amongst the healthcare staff [7].

Conclusion

Gastritis is a very common condition in patients from Bangladesh due to the high incidence of H Pylori among the population [8]. It is not uncommon for these patients to present with symptoms of bloating, belching and dyspepsia, hence there may be a tendency for doctors not to explore the other causes of these symptoms, such as cardiovascular or respiratory causes. This is particularly so in cases where patients book an appointment over the phone with the operator to have a virtual consultation to obtain a refill of their regularly prescribed medication, in this case a Proton Pump Inhibitor.

Risk stratification of patients with a personal or family history of diabetes, hypertension and dyslipidaemia is important with patients of Bangladeshi origin as the incidence of these conditions is high among this population [9]. Physicians need to be aware that patients with serious life-threatening symptoms may not always understand the severity of their condition and may make routine appointments with the physician [10]

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